Why NFC is Bigger than Paying With Your Mobile Phone

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Sony
Chairman, NFC Forum

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Concept of NFC

ISO14443/18092 TypeA
ISO14443 TypeB
ISO18092 TypeF

Global Interoperability

Form Factor Free

Card (ID-1)
Device (Mobile, PC, CE, Terminals)
Tag
NFC Works in Three Modes

Card Emulation
Enables NFC devices to act like contactless cards
Works with existing contactless infrastructure
Examples include NFC-enabled mobile phones used for payment and transit

Reader/Writer
Enables NFC devices to act as Reader/Writer and interact with NFC tags
Example includes NFC-enabled mobile phones used to read “smart posters”

Peer-to-Peer
Enables NFC devices to communicate with one another
Examples include connecting NFC-enabled laptops and printers or sharing photos between a camera and TV
NFC Is Not Just Mobile

NFC brings value to many other electronics as well
NFC Is More Than Payment

- NFC mobile phones are for more than payments:
  - Ticketing and transport
  - Loyalty and couponing
  - Secure access to buildings and PCs
  - Inventory control with tags and readers
  - Information exchange
    - NFC device to device
  - Security patrols
  - Patient monitoring
  - Smart Posters
Is the Market’s Focus Too Narrow?

Could simple tags be a killer app?

- Controlled by the consumer
  - Am I interested enough to tap?
- “Tap and Read”
  - Simpler than QR or bar codes
- Easy and inexpensive to deploy
- Unlimited informational and promotional opportunities across every vertical
Example: Consumer Electronics

- **Pairing NFC Devices**
  - Home computer components
  - In-car devices
  - Home entertainment systems
  - Headsets and handsets
  - Cameras and printers / digital frames

- **Connectivity**
  - Quick and secure Bluetooth and Wi-Fi set-up
  - Fast data transfer
  - Audio handover

- **Information Gathering**
  - Read product history from smart tag to NFC phone

- **Asset Management**
  - Use NFC phones to read smart tags per product for inventory control
New Business Opportunities

- Target Verticals Benefitting from NFC
  - Advertising
  - Automotive
  - Financial Services
  - Health Care
  - Retail
  - Transportation
  - Travel & Entertainment

...and many more
NFC N-Mark

- Consumer-facing mark
- Shows where to touch another N-Mark to use NFC
- No cost to use, free license, available to everyone
- For use on smart posters, cards, labels, devices
- Free license at: www.nfc-forum.org
Marketplace Situation
Global Market Developments

- Business models are coming together to launch major NFC initiatives
  - MNOs and financial service providers are collaborating
  - Handset manufacturers, governments, financial service providers, universities, and retail companies are joining forces
- NFC product and service announcements accelerating rapidly
- Transport operators are mandating use of NFC
- Stadiums are implementing NFC for ticketing
- SNS check in, and many other services, increasing
- Consumer acceptance and excitement are high with approval ratings up to 85%
New NFC Solutions

Download a FREE Coles & Curtis video recipe right here.

More Video Cookbook recipes at coles.com.au
NFC Phones Here Now

Available in the market…

- **Nokia Symbian Belle** 600/700/701
- **Google Nexus S**
- **Samsung S5230**
- **Samsung SHW-A170K**
- **Samsung GALAXY S II**
- **Sagem COSYPHONE**
- **Nokia C7**

- **Pantech Sky Vega Racer**
- **BlackBerry Bold 9900/9930**
- **Motorola MC75A HF**
- **HTC Ruby/Amaze**
- **Sonim XP3300 Force**
- **LG T530/Ego**
- **Casio Ruggedized IT-800RGC 35**
- **Casio DT-X8**

**ALSO:**
- Hedy/Unicom phones
- Shanghai Simcom/Eastcom phones
NFC Phones on the Way

Coming soon…

- Nokia Oro
- Blackberry Curve 9350/60/70
- Samsung Wave 578
- LG LU6200
- Acer E320 Liquid Express
- LG Optimus Net
- HTC Incredible S
- Gentag GT-601
- Sony Ericsson Xperia
- Huawei Sonic
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**ALSO:**
- ZTE phones
- Additional Android “Gingerbread” phones
NFC Phones Rumored

Speculation…

YULONG

iPhone
A fast-moving new segment, with several models recently announced and demonstrated:

- Samsung Windows Tablet prototype – demonstrated and handed out at Microsoft Build conference, September 13-16
- Sharp RW-T107 Android Tablet with NFC functionality built in – launched in Japan
- TazPad from TazTag aimed at retail use – launched in France
NFC Forum Google Hits

Increasing Year to Year!
What the Analysts are Saying

- **Juniper Research:**
  - NFC-based mobile transactions are expected to reach nearly $50 billion worldwide by 2014
  - 1 in 6 users worldwide will have an NFC-enabled phone by 2014
  - There will be approx $113 billion made in NFC transactions worldwide in 2016; North America will account for $47 billion, or 41.6%

- **Frost & Sullivan**
  - By 2015 NFC technology will be the most-used solution for mobile payment

- **Forrester Research**
  - Named NFC to its Top Mobile Trends for 2011

- **Yankee Group**
  - Global mobile transactions predicted to be US$241 billion in 2011 growing to more than $1 Trillion by 2015
NFC Forum
The mission of the NFC Forum is to advance the use of NFC technology by:

- Developing standards-based specifications that ensure interoperability among devices and services
- Encouraging the development of products using NFC Forum specifications
- Educating the market globally about NFC technology
- Ensuring that products claiming NFC capabilities comply with NFC Forum specifications
- Promoting the NFC Forum N-Mark
We’re Well Into The Journey

Define and Stabilize Technology

Support Interoperability
Enhance Technology
Support Ecosystem

Refine Technology
Expand Ecosystem
Promote End User Usage

2008  2009  2010  2011  2012/13
NFC Forum Activities
Steps to Success

1. Specification Development
2. Compliance Program
3. Ecosystem Development
Flexible and Stable Specifications

- NFC Forum 16 specifications form a solid base that supports all implementations and approaches
  - Global
  - Universal
  - Device independent
  - Building blocks applicable to many verticals and use cases
- The specifications enable basic interoperability
- Ecosystem players are implementing them today
- Can be downloaded free of charge; thousands of downloads to date
Step #2: Compliance Program

- Delivers on the NFC brand promise of compliance and interoperability
- Provides a process by which devices can be certified to comply with the Forum’s open specifications
- Enables testing venues to promote interoperability
NFC Forum Certification Mark

- Industry-facing mark
- Granted to products that complete NFC Forum certification
- For NFC Forum members only
- Available TODAY
Step #3: Build the Ecosystem

- Develop partnerships and liaisons
- Establish co-marketing agreements
- Grow NFC Forum membership
The NFC Ecosystem is Broad and Complex
Outreach is Critical

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<thead>
<tr>
<th>Liaison</th>
<th>Category</th>
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<tr>
<td>GSMA</td>
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<td>ETSI</td>
<td>Telecom</td>
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<tr>
<td>Continua Health Alliance</td>
<td>Health care, advertising</td>
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</tbody>
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Ongoing technical and business development conversations for joint programs
Activities to Expand Opportunities

- Formal opportunities for members to share business developments at face-to-face meetings
- Global Competition in partnership with WIMA to encourage innovation
- Twitter
  - Communicate relevant information about NFC, Forum announcements
- Event partnerships
- Spotlight events for developers
- White papers
  - Smart Posters
  - NFC in Public Transport
  - National Retail Federation Mobile Blueprint (collaboration)
- Webcasts on both technical topics and business use cases
NFC is a “Horizontal” Technology

- Reaches across multiple devices and multiple use cases
- Our work is to ensure smooth and timely deployment
  - Specs that cover all uses now and in the future
  - Certification program that ensures compliance without undue complexity
  - Educational programs in conjunction with vertical market players to show and encourage the breadth of possible uses
Thank you!